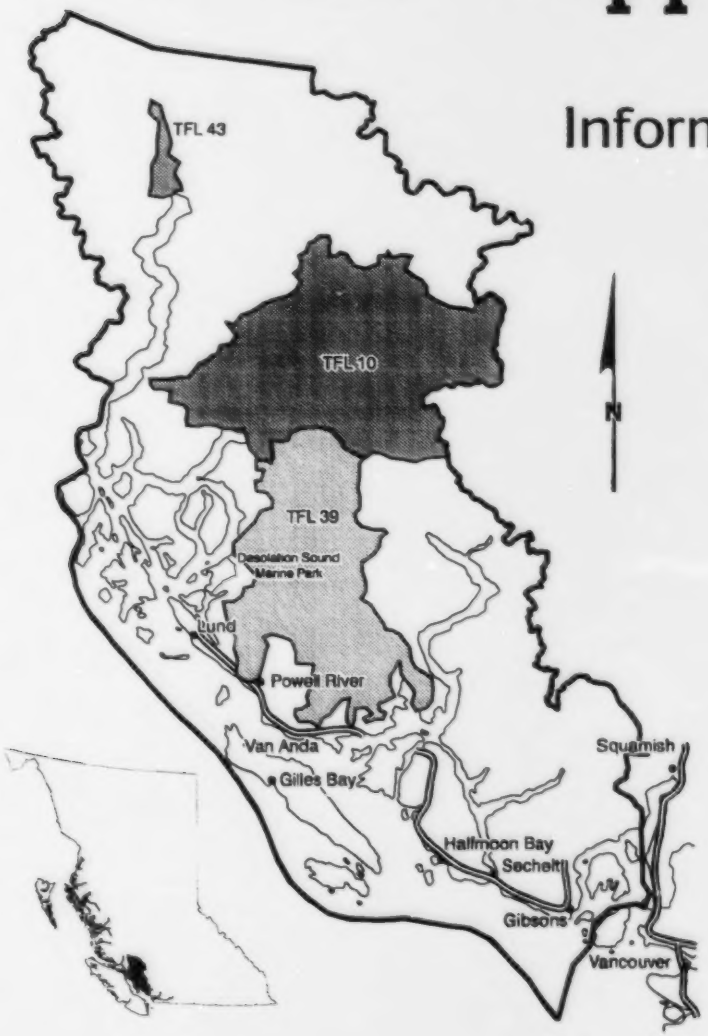
Timber Supply Review

Sunshine Coast Timber Supply Area

Information Report
May 2000



DOC
BC
F6
D:S8675
2000
c.3

BRITISH COLUMBIA
Ministry of Forests

LEGISLATIVE LIBRARY
VICTORIA, BC V8V 1X4

LEGISLATIVE LIBRARY OF BRITISH COLUMBIA
3 3298 00240 7758

100-05667/

Introduction

The British Columbia Forest Service is required by law to formally review the timber supply* in all timber supply areas* and tree farm licence* areas in the province. A review of each of the areas is completed at least once every five years. The main objectives of the reviews are:

- to identify the economic, environmental and social information that reflects the current forest management practices—including their effects on the short- and long-term timber supply
- to identify where improved information is required for future timber supply forecasts
- to provide the chief forester with information to make any necessary adjustments to the allowable annual cuts* for the next five years

* Throughout this document, an asterisk at the end of a phrase or word indicates that a definition can be found in the margin.

Objective of this document

The objective of this document is to provide an opportunity for public review of the draft data and management assumptions that will be applied in the timber supply analysis for the Sunshine Coast timber supply area. This document represents the early stages of the timber supply review process and is intended to provide a non-technical overview of the draft data and management assumptions that will be used in the upcoming *Sunshine Coast Timber Supply Area Analysis Report*.

The *Sunshine Coast Timber Supply Area Analysis Report* will be one of the documents that the chief forester will consider in making the allowable annual cut determination under Section 8 of the *Forest Act*. Public input is encouraged to ensure the best information is used in determining allowable annual cuts.

This report contains a general description of the data assumptions and current forest management practices related to timber supply for the Sunshine Coast timber supply area. For the purpose of this timber supply review, current practices can be defined as the set of land-use decisions and forest management practices that are currently implemented and enforced. Future forest management objectives that may be established but are not currently implemented and enforced are not included.

Many of the draft data and management assumptions are summarized on pages six through ten. For a more detailed description of the information, please contact the Sunshine Coast Forest District office in Powell River, or the Vancouver Forest Region office in Nanaimo and request a copy of the data package. The public will have 30 days to review and comment on the information report and data package. A response form at the end of this document will assist you in providing your comments. Written comments will be accepted until June 19, 2000.

Timber Supply Review process

In British Columbia, a process for determining allowable annual cuts has been in place since the late 1940s. However, the process has changed significantly since then. More recently, the process has undergone some minor revisions designed to improve efficiency and encourage earlier public review through the release of this report.

Figure 1 (next page) illustrates the five-step process that has been developed for the Timber Supply Review for timber supply areas. The diagram indicates the current status of the Timber Supply Review for the Sunshine Coast timber supply area, and the estimated minimum time required for each step.

Timber Supply Review

in the Sunshine Coast TSA

Timber supply
A harvest level that is forecasted to be available over time, under a particular management regime.

Timber supply area
An integrated resource management unit established in accordance with Section 7 of the *Forest Act*.

Tree farm licence
Provides rights to harvest timber, and outlines responsibilities for forest management, in a particular area.

Allowable annual cut (AAC)
The rate of timber harvest permitted each year from a specified area of land, usually expressed as cubic metres of wood per year.

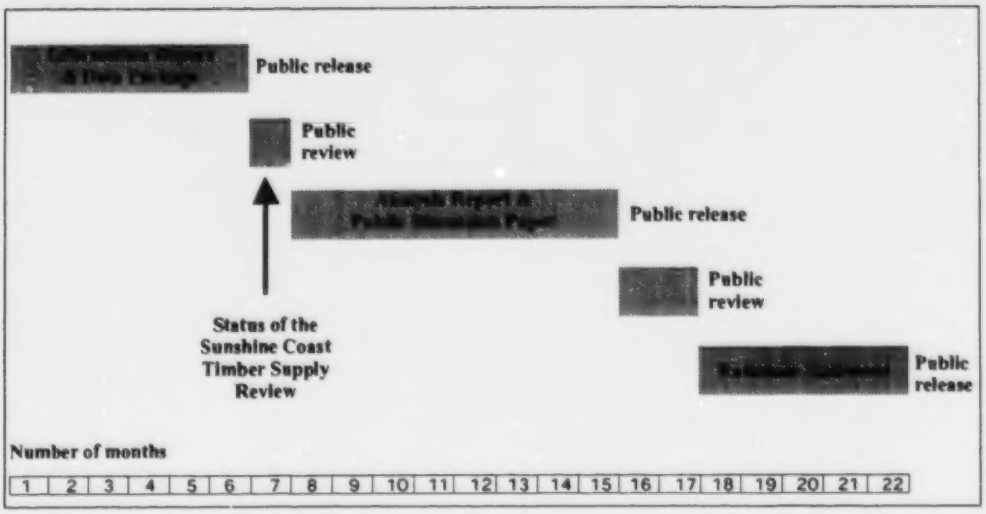

Public release
Public review
Public release
Public review
Status of the Sunshine Coast Timber Supply Review
Public release
Number of months
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

Figure 1.
Review process for the Sunshine Coast timber supply area.

The process for reviewing the timber supply and establishing the allowable annual cut for tree farm licence areas is based on similar principles; however, the process currently takes 30 months to complete. By the end of 2001, a new process for tree farm licences will take 20 months from start to completion.

The Chief Forester's responsibility

Determining the allowable annual cuts for Crown forest lands in British Columbia is the responsibility of the province's chief forester. It is one of the chief forester's most important responsibilities since it affects the local and provincial economies and environment—now and in the future. Section 8 of the *Forest Act* requires the chief forester to consider the following factors to determine allowable annual cuts for timber supply areas and tree farm licence areas:

a) the rate of timber production that may be sustained from the area, taking into account:
   - the composition of the forest and its expected rate of growth
   - the time in which the forest will become re-established
   - silvicultural treatments, including reforestation
   - standards of timber utilization
   - constraints on the amount of timber produced from the area due to use of the forest for purposes other than timber production
   - any other information which relates to the capability of the area to produce timber

b) the short- and long-term implications to the province of alternative rates of timber harvesting from the area

c) the nature, production capabilities and timber requirements of established and proposed processing facilities

d) the economic and social objectives of the Crown for the area, the region and the province, as expressed by the minister of forests, and

e) abnormal insect or disease infestations and major salvage programs planned for the timber on the area

Some of these factors can be measured and analyzed—others cannot. Ultimately, the chief forester's determination is an independent, professional judgement based on the best available information. Information that is relevant to the factors listed above is provided to the chief forester by government agencies, the minister of forests and the public.

One of the objectives of the Timber Supply Review is to incorporate changes arising from new information, new practices and new government initiatives that may have an impact on timber supply.

In the event of significant change, the allowable annual cut may be reviewed in less than the required five years.

Following the release of the allowable annual cut determination by the chief forester, the minister of forests apportions the cut to various licences and programs.

Principles of the Timber Supply Review

In determining allowable annual cuts—in addition to the requirements outlined in Section 8 of the *Forest Act*—the following principles have been developed.

The Timber Supply Review:

- is a decision-making process for establishing allowable annual cuts for timber supply areas and tree farm licence areas by the chief forester on a maximum five-year cycle, as required under Section 8 of the *Forest Act*; **it is not a process for making land-use or management decisions**
- incorporates the best information available, including all relevant current practices, and identifies where new information is needed
- reflects the results of implemented plans and land-use decisions, and provides a benchmark for future planning processes
- involves other agencies, affected groups and the public.

Land-Use Planning Activities

There are no regional planning processes currently underway in the Sunshine Coast timber supply area. However, several small local plans have been completed that reflect integrated multiple-resource use in the planning areas. Since the last timber supply review, ten new protected areas have been designated and five more are soon to be announced. The designated protected areas will be excluded from the timber harvesting land base*, and the timber supply contribution within the pending protected areas will be examined in a sensitivity analysis*.

Description of the timber supply area

Located along the southwest coast of British Columbia, the Sunshine Coast timber supply area extends from Howe Sound in the south to the head of Bute Inlet in the north. The timber supply area covers approximately 1.1 million hectares and is part of the Sunshine Coast Forest District. The forest district covers a larger area that includes Tree Farm Licence 10, and part of Tree Farm Licences 39 and 43. The area within the tree farm licences will not be included in this timber supply review.

The Sunshine Coast timber supply area is administered by the Sunshine Coast Forest District office located in Powell River, and a field office in Sechelt.

The communities

According to the 1996 Census, the population of the Sunshine Coast timber supply area was 45,878 people, which was a 14.5 per cent increase from 1991. The largest communities are Powell River with a population of 13,131 people, Sechelt with a population of 7,343 and Gibsons with a population of 3,743. Other communities include Lund and the island communities located on Texada, Cortes, and Lasqueti Islands.

The economy

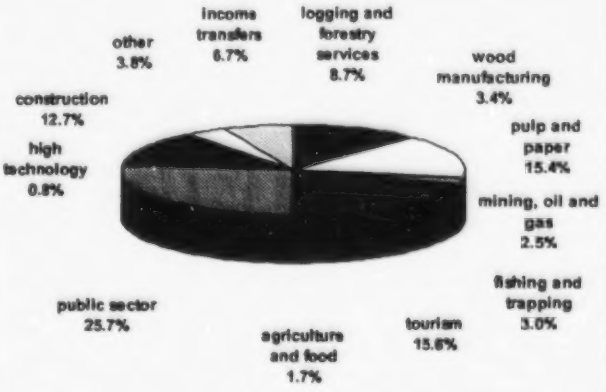
The economy of the Sunshine Coast timber supply area is not well diversified. Figure 2 illustrates total employment by industry sector in 1996 for the Sunshine Coast Forest District. The total labour force was estimated at 21,990, representing a 12 per cent increase from 1991.

Timber harvesting land base
Crown forest land within the timber supply area that is currently considered feasible and economical for timber harvesting.

Sensitivity analysis
Examines how uncertainty in data and management assumptions affect timber supply.

As Figure 2 shows, forestry accounts for 27.5 per cent of the total labour force (logging, wood manufacturing, and pulp and paper). However, forest sector employment has been declining since the early 1980s, and from 1991 to 1996 direct employment in the forest sector declined by over 40 per cent. Since 1996, forest products processing employment has further declined. The public sector is the second largest employer supporting approximately 26 per cent of the labour force, followed by tourism (including business travel) and construction.

Figure 2. Total employment by sector for the Sunshine Coast Forest District, 1996.



Notes: "Other" includes transportation and manufacturing not allocated elsewhere. "Income transfers" reflect induced employment supported by pension and investment income. Forestry employment figures are for the Sunshine Coast Forest District and include employment that relies on the Sunshine Coast timber supply area and tree farm licence areas. Total employment includes direct, indirect and induced employment.
Source: The 1996 Forest District Tables, April 1999. Ministry of Finance and Corporate Relations.

First Nations

Seven First Nations have traditional territory in the Sunshine Coast timber supply area. Four of these First Nations also have reserve lands—Sechelt Indian Band, Sliammon Indian Band, Homalko Indian Band, and Klahoose Indian Band. The other three First Nations with traditional territory include the Squamish Nation, Comox Indian Band and the Kwakiutl District Council.

The Sechelt Indian Band has traditional territory covering the Jervis and Sechelt Inlets, and the majority of the members reside in Sechelt. The Sliammon Indian Band has 6 reserves and traditional territory located near Powell River. The Homalko Indian Band has 11 reserves and traditional territory near and around Bute Inlet, and the majority of the members now reside in Campbell River. The Klahoose Indian Band has a reserve and office located in Squirrel Cove on Cortes Island, and traditional territory extending into the head of Toba Inlet. These four First Nations have an estimated population of 2,150 people living in the timber supply area.

In April 1999, the Sechelt Indian Band signed an agreement-in-principle. Upon completion of a final agreement, it will be the second treaty negotiated under the new treaty process between the First Nations, and the federal and provincial governments.

Forest land resources

Numerous natural resources are associated with the forest land base. Forest products, recreation and tourism, fishery and wildlife habitat highlight the wide range of resources and values found in the Sunshine Coast timber supply area. Mountainous topography and associated high rainfall produce a diverse climate and ecology that results in nutrient-rich, moist flood plains in valley bottoms and alpine meadows in the higher elevations.

Due to the mountainous terrain, only 20 per cent of the timber supply area is estimated to be suitable for harvesting. Douglas-fir, western hemlock, and mountain hemlock are the major tree species found in the timber supply area, with some areas covered with western redcedar. The timber supply area has a

long history of harvesting activity, resulting in younger forests on the better quality, accessible growing sites, and older forests on the poorer and less accessible areas.

Parks, recreation sites and trails, and roaded and non-roaded areas provide opportunities for numerous outdoor activities. Recreational activities include hiking, camping, mountain biking, horseback riding, mountaineering, canoeing and kayaking.

The environment

There are five biogeoclimatic zones* in the Sunshine Coast timber supply area. The distinct ecological features contribute to high biodiversity* values. The landscape includes wave-beaten shorelines, coastal plains, rugged ice-capped mountains, fiords and estuaries. Vegetation consists primarily of large temperate rainforests with alpine tundra on the mountain summits.

The diverse forests and marine areas host a range of wildlife and fish species, some of which are considered to be threatened or endangered. Examples of threatened or endangered species in the timber supply area include Northern goshawk, marbled murrelet, Pacific water shrew and Keen's long-eared myotis. Examples of species considered to be potentially threatened by human activities or natural events include bull trout, tailed frog, American bittern, fisher and grizzly bear.

Fish species found in the timber supply area include steelhead, Dolly Varden char, cutthroat and rainbow trout, and a variety of salmon species.

History of the allowable annual cut

In June 1996, the chief forester set the current allowable annual cut at 1,140,000 cubic metres (effective July 1, 1996), an increase of approximately 3.6 per cent. The chief forester also specified that 1,045,000 cubic metres is attributable to coniferous* forests and 95,000 cubic metres is attributable to deciduous* forests.

As part of the 1996 determination, the chief forester gave direction to resolve uncertainties with respect to the timber supply in the Sunshine Coast timber supply area. In preparation for the next allowable annual cut determination, the following issue was examined:

- **deciduous forests** - as noted in the previous determination, the chief forester requested a review of the objectives for reforestation and a long-term management regime for deciduous forest stands.

  The Forest Service has developed a five-year plan to address the management of deciduous trees, specifically red alder. Forested areas with a dominant component of red alder (red alder-leading) and more than 50 per cent of the volume comprised of deciduous trees, will be identified and scheduled for harvesting over a number of years. After harvesting, about 35 hectares per year will be planted with red alder, and the remaining portion will be planted with coniferous trees. The timber supply contribution from the red alder-leading stands will be reflected in the upcoming timber supply analysis.

Biogeoclimatic zones
A large geographic area with broadly homogeneous climate and similar dominant tree species.

Biodiversity (biological diversity)
The diversity of plants, animals and other living organisms in all their forms and levels of organization, and includes the diversity of genes, species and ecosystems, as well as the evolutionary and functional processes that link them.

Coniferous
Coniferous trees have needles or scale-like leaves and are usually 'evergreen'.

Deciduous
Deciduous trees commonly have broad-leaves and usually shed their leaves annually.

Integrated resource management
The identification and consideration of all resource values, including social, economic and environmental needs, in resource planning and decision-making.

Forest Practices Code
Legislation, standards and guidebooks that govern forest practices and standards, with heavy penalties for violators.

Operability
Classification of an area considered available for timber harvesting. Operability is determined using the terrain characteristics of the area as well as the quality and quantity of timber on the area.

Environmentally sensitive areas
Areas identified as requiring special management to protect important recreation and scenic values, fisheries resources, sensitive soils and unstable slopes.

Current timber supply review

Public forest lands in British Columbia provide recreational enjoyment, fish and wildlife habitat water supplies, timber resources and many other benefits. The Ministry of Forests manages the timber, range and recreation resources on public lands, and the Ministry of Environment, Lands and Parks manages fish, wildlife, water resources and parks. Both agencies subscribe to the principle of integrated resource management*, where all resources are considered when making forest management decisions.

The Forest Practices Code* is in effect and has been fully implemented in the timber supply area since June 15, 1997. The new practices may influence both the short- and long-term timber supply.

The data and management assumptions that will be used in the timber supply analysis will be based on the existing land-use designations and resource management practices that are currently approved and implemented in the Sunshine Coast timber supply area. Uncertainties about some of the data regarding current practices, and their potential effect on timber supply will be examined through sensitivity analyses. The chief forester will also consider any new information, based on implemented changes, at the time of the allowable annual cut determination.

Draft data and management assumptions for public review

The public is encouraged to review the data and management assumptions for completeness and accuracy. In determining an allowable annual cut, the chief forester will consider these assumptions as required by Section 8 of the *Forest Act*. The following general outline contains some of the more pertinent information that will be used in the timber supply analysis, and subsequently, in the chief forester's allowable annual cut determination for the Sunshine Coast timber supply area. More detailed information can be found in *Appendix A: Data Package*. The appendix is available upon request from the Forest Service offices listed at the end of this report.

Land base factors

- **operable area** – an assessment of operability* considers economic and terrain attributes. Operability mapping for the timber supply area was reviewed and updated during 1998 and 1999. As part of the review, areas were classified by terrain accessibility and harvesting system, and then assessed for economic limitations. Only areas that are both accessible and economic to harvest will contribute to the timber harvesting land base.
- **low productivity sites** – forest stands that are not considered available for harvesting due to low timber volumes or low projected growth rates are not included in the timber harvesting land base.
- **environmentally sensitive areas*** – the forest inventory includes a classification of areas considered to be environmentally sensitive and/or significantly valuable for other resources. For the Sunshine Coast timber supply area, environmentally sensitive areas include areas with forest regeneration problems, snow avalanche risk, sensitive soils, important recreation values, critical wildlife habitat and watershed* values.

All areas that are classified with forest regeneration problems or provide buffers adjacent to high avalanche risk areas will not contribute to the timber harvesting land base. Only 10 per cent of areas with highly sensitive recreation values, critical wildlife habitat, and watershed values outside of community watersheds will contribute to the timber

harvesting land base. Areas with moderate wildlife habitat and moderate recreation values will be reduced by 40 per cent and 50 per cent, respectively.

Terrain stability and slope mapping have been completed for part of the timber supply area. Where mapping is complete, a review was undertaken to determine improved reduction factors for terrain stability to replace those based on the environmental sensitivity classification. Based on this review, for slopes greater than 60 per cent all areas with highly unstable terrain will not be included in the timber harvesting land base and 30 per cent of areas with moderately unstable terrain will not be included. In addition, slopes greater than 60 per cent will be reduced by 32.3 per cent in areas covered by slope mapping but not yet classified for terrain stability. Areas not covered by terrain stability nor slope mapping, will be reduced based on environmentally sensitive area classification for soils.

Additional reduction factors for important recreation areas are discussed below.

- **forest roads, trails and landings** – for the timber supply analysis, an estimate will be made based on inventory data for the productive forest land occupied by existing roads, trails, and landings. To account for productivity losses due to existing roads, trails and landings, the reduction is expected to be about 5.7 per cent of areas previously harvested. To account for future roads, trails and landings, a 4.6 per cent reduction will be applied to the timber harvesting land base currently covered with mature forests.
- **cultural heritage resources** – a review was undertaken of the existing archaeological overview and impact assessments, including an archaeological inventory report. Based on this review, 933 hectares will be excluded from the timber harvesting land base to account for the Sechelt Treaty Land Agreement-in-Principle. In addition, 50-metre buffers around all known archaeological features will be reflected in the analysis.

Inventory factors

- **forest inventory** – the current forest inventory has been updated to 1999 to take into account recent harvesting and silviculture activities. In 1999, a Vegetation Resources Inventory was completed and provides updated information regarding the height, age and volume of stands in the forest inventory.

  The dominant tree species is Douglas-fir, which accounts for 44 per cent of the total volume. Western and mountain hemlock account for 29 per cent, true firs (balsam) and cedar account for 13 per cent, and other species such as red alder account for the remaining 14 per cent. Approximately one quarter of the total volume is mature forests, with 46 per cent of this volume growing on poorer productivity sites.
- **minimum harvestable ages** – the minimum harvestable age is the earliest age at which a forest stand is estimated to reach a merchantable size and considered available for harvest. For the timber supply analysis, the minimum harvestable ages will be set at the greater of the time expected for stands to achieve at least 300 cubic metres per hectare or 95 per cent of the maximum mean annual increment*.

Forest re-establishment factors

- **basic silviculture** - British Columbia laws require that harvested areas that are expected to produce timber in the future must be reforested with ecologically acceptable species within a specified time frame.

  A variety of different silviculture* practices are used in the Sunshine Coast

Watershed
An area drained by a stream or river. A large watershed may contain several smaller watersheds.

Mean annual increment (MAI)
Stand volume divided by stand age. The age at which average stand growth, or MAI, assumes its maximum is called the culmination age. Harvesting all stands at this age results in a maximum average harvest over the long term.

Silvicultural treatments
Activities that ensure the regeneration of young forests on harvested areas, enhance tree growth or improve wood quality in selected stands. Activities include: site rehabilitation and preparation, planting, spacing, fertilization and pruning.

Clearcut harvesting
A harvesting method whereby all trees that meet utilization standards are harvested. The harvested site is then regenerated to acceptable standards by appropriate means including planting and natural seeding.

Clearcutting with reserves
A variation of the clearcut silvicultural system in which trees are retained, either uniformly or in small groups, for purposes other than regeneration.

Cutblock
A specific area, with defined boundaries, authorized for harvest.

Green-up
The time needed after harvesting for a stand of trees to reach a desired condition (usually a specific height) — to ensure maintenance of water quality, wildlife habitat, soil stability or aesthetics — before harvesting is permitted in adjacent areas.

timber supply area such as clearcut harvesting*, clearcutting with reserves* and partial harvesting systems. Reforestation of these areas is achieved predominantly by planting well-spaced trees of acceptable species. Natural regeneration also occurs on harvested areas, adding to the tree species diversity. In the timber supply analysis, to reflect current practice it is assumed that that areas will be reforested with one-year old seedlings within an average of four years following harvesting.

- **tree improvement** – about 50 per cent of the seedlings planted in the Sunshine Coast timber supply area are from seed orchards that produce improved stock. This percentage is expected to increase to 75 per cent over the next 10 years. Improved stock does not mean that the seedlings are genetically modified but rather they are the product of superior parent trees selected from a large number of forest stands along the coast. Therefore, the seedlings produced from these parents exhibit qualities such as straight stem form, higher volume production, and tighter wood density. Provincial studies show that improved stock can result in a volume increase of about two per cent over the long term. This potential increase in stand volume will be examined in the timber supply analysis.

Timber utilization factors

- **timber utilization** – estimates of merchantable volume will be based on the utilization of trees which meet or exceed the following standards. For all mature coniferous trees older than 120 years and deciduous trees older than 40 years, the standard is a minimum 17.5-centimetre diameter measured at 1.3 metres above ground. For coniferous trees younger than 120 years and deciduous trees younger than 40 years, the standard is a minimum 12.5-centimetres diameter measured at 1.3 metres above ground. All species must be utilized to a minimum 10-centimetre top diameter inside bark and a maximum 30-centimetre high stump.

  Actual utilization standards differ slightly but the effect on timber supply is negligible.

Devastations, infestations and salvage of timber

Each year, natural agents such as wind, fire, insects, mammals and disease damage portions of the forests in the Sunshine Coast timber supply area. It is anticipated that some of the damaged timber will not be salvaged due to poor access and economic limitations. The unsalvaged volume is estimated to be approximately 12,211 cubic metres annually.

Factors to be considered for purposes other than timber production

Guidelines used to manage forest resources such as biodiversity, scenic values, wildlife habitat and water quality will be included in the timber supply analysis through the use of forest cover requirements, and volume and land-base reductions.

- **general forest cover requirements** – under current forest management practices, cutblocks* must achieve green-up* before adjacent areas are permitted to be harvested. The objective of this practice is to avoid over-concentration of harvesting in an area. To account for forest cover requirements in the integrated management areas, a maximum of 33 per cent of the timber harvesting land base will be permitted to have forests less than 3 metres tall at any time. In addition, considerations for maintaining areas of old-growth forests for biodiversity will be applied in the timber supply analysis (see below, under biological diversity).

- **visually sensitive areas** – the maintenance of scenic landscapes is often a priority for recreation and tourism management along marine corridors, major highways, primary access corridors and around communities. Road construction and logging within these areas are planned and implemented to minimize visual impacts. To reflect the current management practice in visually sensitive areas, a maximum of between 5 and 25 per cent (based on visual sensitivity) of the area will be allowed to have forests less than 5 metres tall at any time.
- **recreation areas** – a recreation inventory was completed in 1995 for the Sunshine Coast timber supply area. All areas identified to be managed exclusively for recreation, and half of the areas requiring special management to protect recreational values, will not contribute to the timber harvesting land base.
- **riparian habitat*** – to meet the requirements of the *Forest Practices Code*, a portion of the operable land base will be considered unavailable for harvesting to account for riparian management areas along streams and lakes. It is estimated that about 3.3 per cent of the productive forest will not contribute to the timber harvesting land base to account for riparian reserves and riparian management zones. To reflect gully management areas, the timber harvesting land base will be further reduced by 0.8 per cent.
- **biological diversity** – or biodiversity, is the full range of living organisms, in all their forms and levels of organization, and includes the diversity of genes, species, and ecosystems, and the evolutionary and functional processes that link them. The *Forest Practices Code* requires that biodiversity be managed at both the stand and landscape level.

Leaving wildlife tree* patches to maintain stand-level biodiversity is current practice in the Sunshine Coast timber supply area. This practice results in wildlife tree patches that are often larger than two hectares and overlap with riparian areas and other inoperable* areas. In the timber supply analysis, wildlife tree patches will be accounted for by reducing the timber harvesting land base by between 0.5 to 2.5 per cent (based on ecosystem type).

Considerations for landscape-level biodiversity will be accounted for in the timber supply analysis by applying averaged seral stage* requirements to each draft landscape unit* and biogeoclimatic variant. This is being done because at this time the landscape units and biodiversity objectives are still draft and have not yet been formally established. A sensitivity analysis will examine the impact to timber supply from applying the requirements as described in the Regional Landscape Unit Planning Strategy.

- **community watersheds** – there are 26 designated community watersheds in the Sunshine Coast timber supply area. The forest management guidelines for these areas will be accounted for in the timber supply analysis by limiting the harvest rate to a maximum of 5 per cent of the productive forest within each community watershed every 5 years.

Implications of alternative rates of harvesting

- **alternative rates of harvesting** – many alternative harvest forecasts can be produced for a given set of forest conditions and management assumptions. Each alternative usually represents a trade-off between the harvest level in the short term and the subsequent transition to the long-term harvest level. For the projected base case forecast*, the initial harvest forecast will be based on trying to achieve the current allowable rate of harvest in the short term without compromising the long-term harvest level, and if necessary, allowing for

Riparian habitat
The stream bank and flood plain area adjacent to streams or water bodies.

Wildlife tree
A standing live or dead tree with special characteristics that provide valuable habitat for conservation or enhancement of wildlife.

Inoperable areas
Areas defined as unavailable for harvest for terrain-related or economic reasons. Characteristics used in defining inoperability include slope, topography (e.g., the presence of gullies or exposed rock), difficulty of road access, soil stability, elevation and timber quality. Operability can change over time as a function of changing harvesting technology and economics.

Seral stages
Sequential stages in the development of plant communities that successively occupy a site and replace each other over time.

Landscape unit
A planning area based on topographic or geographic features, that is appropriately sized (up to 100 000 hectares), and designed for application of landscape-level biodiversity objectives.

gradual and managed transitions to lower harvest levels. The implications of alternative short-term rates of harvest will be examined in the timber supply analysis.

- **implications related to community dependence** – the impact of timber supply adjustments on local communities and the province is an important consideration in the timber supply review. The *1995 Sunshine Coast TSA Socio-Economic Analysis* reported that, provincially, harvesting, silviculture and processing activities, associated with the Sunshine Coast timber supply supported approximately 1,320 person years* of direct employment and approximately 3,300 person years of indirect and induced employment. Local residents account for approximately one-third of this employment.

  The socio-economic section of the upcoming timber supply analysis report will review the role of the forest sector in the Sunshine Coast timber supply area. To provide this update, current information on employment and fibre flows will be gathered from licensees, processing facilities, the Forest Service and other stakeholders. Indirect and other related employment at both the local and provincial levels will also be estimated using employment multipliers provided by the Ministry of Finance and Corporate Relations.

  To examine the implications of alternative rates of harvest, employment coefficients, reported in person years per 1,000 cubic metres, will be developed and used to estimate changes to employment levels now and in the future from any potential harvest level changes.

Base case forecast
The timber supply forecast which illustrates the effect of current forest management practices on the timber supply using the best available information, and which forms the reference point for sensitivity analysis.

Timber processing facilities

The socio-economic analysis will examine the implications of potential changes in timber supply for the area's timber processing facilities. In 1998, one lumber mill, two pulp and paper mills, and one shake and shingle mill operated in the Sunshine Coast timber supply area.

Person-year(s)
One person working the equivalent of one full year, defined as at least 180 days of work. If someone works full-time for 90 days, he or she accounts for 0.5 person years.

Economic and social objectives of the Crown

In a letter and a memo to the chief forester, the minister of forests has expressed the Crown's economic and social objectives for the province. The harvest flow objectives to be used in the timber supply analysis (see previous section, "*Alternative rates of harvesting*") will be consistent with the minister's stated objectives.

In addition, economic and social objectives for the area and the general region will be derived from public input.

Your input is needed

Establishing the allowable annual cut is an important decision that requires well-informed and thoughtful public input. Feedback is welcomed on any aspect of this *Information Report*, the *Data Package Appendix* and other topics related to the timber supply in the Sunshine Coast timber supply area. The response form at the end of this document will assist you in preparing your comments. As well, Forest Service staff would be pleased to discuss questions or concerns that may help you prepare your response.

Please mail the completed response form and your comments to the district manager or regional manager located at the address below. Your comments will be accepted until June 19, 2000.

After receiving public input, the Forest Service will finalize the data and management assumptions that will be applied in this timber supply analysis. The timber supply analysis will be completed and available for review by the end of 2000. You may also wish to participate in the second public review period, which will follow the release of the *Sunshine Coast Timber Supply Area Analysis Report*.

Following the second public review period, the chief forester will examine all the information available in order to review the timber supply for the Sunshine Coast timber supply area. The chief forester will then establish the allowable annual cut based on his consideration of the factors as required under Section 8 of the *Forest Act*.

You may identify yourself on your response if you wish. If you do, you are reminded that responses will be subject to the *Freedom of Information and Protection of Privacy Act* and may be made public. If copies of the responses are requested, personal identifiers will be removed before the responses are released.

For more information contact and/or mail your comments to:

District Manager
Sunshine Coast Forest District
BC Forest Service
7077 Duncan Street
Powell River, BC
V8A 1W1

Phone: (604) 485-0700
Fax: (604) 485-0799

Regional Manager
Vancouver Forest Region
BC Forest Service
2100 Labieux Road
Nanaimo, BC
V9T 6E9

Phone: (250) 751-7001
Fax: (250) 751-7196

or electronically mail to:
Barry.Miller@gems7.gov.bc.ca

Sunshine Coast Timber Supply Area
Timber Supply Review

Information Report Response Form

The *Forest Act* requires the chief forester to consider the following factors to determine the allowable annual cut for timber supply areas and tree farm licence areas in the province, as follows:

- the rate of timber production that can be sustained from the area;
- the short- and long-term implications to the province of alternative rates of timber harvesting from the area;
- the nature, production capabilities and timber requirements of established and proposed timber processing facilities;
- the economic and social objectives of the Crown for the area, the general region, and the province, as expressed by the minister of forests, and;
- abnormal insect or disease infestations and major salvage programs planned for the area.

We welcome your review to ensure the best available information is considered for the Sunshine Coast timber supply area. Please provide your comments on this form, or in another format. Input will be accepted until June 19, 2000.

A. Economic and social objectives

Please use the space below to provide your comments regarding the economic and social information contained in this report or other information that you believe should be considered in completing the social and economic analysis for the Sunshine Coast timber supply area.

B. Reviewing the draft data and management assumptions

Please use the space below to provide your comments regarding the draft data and management assumptions contained in this report or other information that you believe should be considered in the timber supply analysis for the Sunshine Coast timber supply area.

Name (optional):_____

Address (optional):_____

Mail or fax your comments to:

District Manager
Sunshine Coast Forest District
BC Forest Service
7077 Duncan Street
Powell River, BC
V8A 1W1

Phone: (604) 485-0700
Fax: (604) 485-0799

or electronically mail to:
Barry.Miller@gems7.gov.bc.ca

Regional Manager
Vancouver Forest Region
BC Forest Service
2100 Labieux Road
Nanaimo, BC
V9T 6E9

Phone: (250) 751-7001
Fax: (250) 751-7196

APPENDIX A

Data Package
Description of Data Inputs and Management Assumptions

This appendix is available upon request from the Ministry of Forests.

Offices are located at:

District Manager
Sunshine Coast Forest District
BC Forest Service
7077 Duncan Street
Powell River, BC
V8A 1W1

Phone: (604) 485-0700
Fax: (604) 485-0799

Regional Manager
Vancouver Forest Region
BC Forest Service
2100 Labieux Road
Nanaimo, BC
V9T 6E9

Phone: (250) 751-7001
Fax: (250) 751-7196